

### Abstract

A method for modification and isolation of a protein is provided. The method includes the steps of providing a protein selected from the group consisting of whey and soy proteins; providing a reagent that forms sulfite ions; mixing the protein with the reagent under a condition to sulfonate the protein without using an oxidizing agent and to obtain a mixture containing a sulfonated protein; precipitating the sulfonated protein out of the mixture at an acid pH to form a precipitated sulfonated protein and a soluble sulfonated protein; and recovering the precipitated sulfonated protein or soluble sulfonated protein.